Curriculum Vitae

Personal information

Name:	**Sardaru Monica-Cornelia**
Date and place of birth	13.09.1992, Rasesti, Vaslui (Romania)
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Maternal Language:	Romanian
Foreign language:	English, Italian

Studies

2016-2020	• Ph.D. in Organic Chemistry at "Alexandru Ioan Cuza" University of Iași, Romania. Thesis title: Five and six membered ring azaheterocycles with potential practical applications.
2014-2016	• M.Sc. in Chemistry at "Alexandru Ioan Cuza" University of Iași, Romania. Thesis title: Synthesis of modified tetrazoles.
2011-2014	• B.Sc. Chemistry in Chemistry at "Alexandru Ioan Cuza" University of Iași, Romania. Thesis title: Monosaccharides.

Involvement in projects (director or member)

01.2023 – present	• ***Project Director***, ICUB, Project title: "Controlled release systems based on G-quartet hydrogels design as antimicrobial agents for topic administration". ***Attributions***: preparation and characterization of supramolecular guanosine-based hydrogels and hydrogel composites with cyclodextrin. Incapsulation of nanomaterials (Carbon nanotubes, Graphene oxide etc.) and drugs. Characterization and prelimnary testing (biocompatibility and antimicrobial activity) of the systems obtained.
Feb 2021 – Nov 2022	• ***Research assistant***, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania, PN-III-P4-ID-PCE-2020-1523, acronym ***TM-Vector***. ***Attributions***: synthesis and characterization of functionalized linkers for the functionalization of gold nanoparticles.

Oct 2022 – Nov 2022	• ***Research assistant***, "Petru Poni" Institute of Macromolecular Chemistry, Iasi, Romania, PN-III-P2-2.1-PED-2021-2193, acronym ***ARGOS***. ***Attributions***: synthesis and characterisation of nanostructured bandages based on collagen functionalized with Au, Ag or magnetic nanoparticles.
Oct 2021 – Dec 2021	• ***Researcher mobility project*** (2-month research stay abroad) at Limited Liability Scientific Service Company Otava, Kiev (Ukraine)- **H2020-MSCA-Rise-2019, NoBiasFluors No 872331**. ***Attributions:*** screening of the available dyes for the formation of the "host-guest" supramolecular assemblies with β- and ɣ-cyclodextrins, synthesis, purification and characterization of fluorescent dye libraries available at OTAVA.
Nov 2018	• ***Research assistant***, "Alexandru Ioan Cuza" University, Iași, PN-III-P1-1.1-TE-2016-1205, acronym ***NPAMFB***. ***Attributions***: synthesis, characterization and preliminary testing of polyfunctional azateroids mimics.
Mar 2018 – Sep 2020	• ***Research assistant***, ”Petru Poni” Institute of Macromolecular Chemistry, Iasi, Romania, ID P_37_707, acronym ***POCPOLIG***. ***Attributions:*** synthesis and characterization of metal organic frameworks building blocks; preparation of supramolecular assemblies based on metal coordination strategy.
Sep 2018	• ***Researcher mobility project***, PN-III-P1-1.1-MC-2018-0672, Participation at 22nd International Conference on Organic Synthesis (Florence, Italy). *Poster title*: *Pyrollo-fused heterocyclic compounds designed as quadruplex DNA ligands: synthesis and anticancer evaluation*.
Feb 2018	• ***Researcher mobility project***, PN-III-P1-1.1-MC-2017-1104, Participation at Chemistry Conferince for Young Scientists (Brussels, Belgium). *Poster title*: *Synthesis and anticancer evaluation of new tetrazoles derivatives.*

Scientific Domains

- Preparation and characterization of supramolecular guanosine-based hydrogels and hydrogel composites with cyclodextrin.
- Preparation and characterization of supramolecular guanosine-based hydrogels and hydrogel composites with dextran.
- Complex organic synthesis of heterocyclic compounds, purification techniques.
- Preparation and characterization of supramolecular host-guest inclusion complexes of fluorescent compounds with cyclodextrin.
- Synthesis, purification and characterization of porous coordination polymers with organic ligands for gaz storage applications.
- *In vitro* cytotoxic activity studies on different cell lines and antimicrobial studies of the compounds and systems obtained.

Personal Skills

- Effective communication – I understand the importance of effective communication with my colleagues and other individuals outside of the scientific field. This skill includes both the

ability to convey clear and precise information, as well as the ability to listen and understand the perspectives of others.
- Critical thinking – I am able to analyze experimental data, evaluate arguments, and make evidence-based decisions. The ability to think critically is useful in any field and involves the capacity to identify problems and develop solutions.
- Adaptability – I am able to adapt to changes in the scientific field, new technologies, and new approaches to research.

Skills related to the research activity

- Good knowledge of synthesis, purification techniques (thin layer and coloumn chromatography on silicagel and aluminium oxide substrates), characterization of small molecules (techniques used: NMR, FTIR, MS, UV-Vis, fluorescence, TG, powder XRD and single crystal) and supramolecular systems (techniques used: circular dichroism, SEM, powder XRD, AFM).

Digital skills

- Good knowledge of MS Office, ChemOffice, Origin, MestreNova, Specman, Zotero.
- Advanced knowledge in using databases with scientific literature Reaxys, SciFinder, ISI Web of Science, ScienceDirect, Scopus.

Scientific Contribution

- 12 scientific papers published in ISI rated journals.
- 1 book chapter.
- 9 oral presentations and posters presented at national and international events.

Scientific Vizibility (Hirsh, Citations, etc.)

- H-index: 5 (according to ISI Web of Science, February 2023).
- Total citations (without self-citations): 48 (according to ISI Web of Science, February 2023).